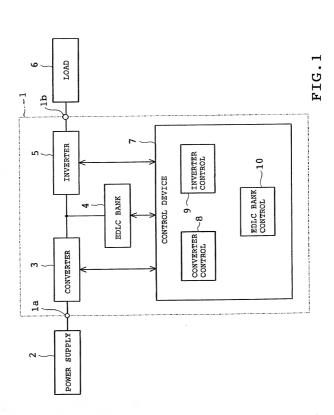
Title: POWER CONTROL DEVICE WITH ELECTRIC DOUBLE LAYER CAPACITOR UNIT CELLS Inventor(s): Tokihiro UMEMURA et al. DOCKET NO.: 017499-0171



Title: POWER CONTROL DEVICE WITH ELECTRIC DOUBLE LAYER CAPACITOR UNIT CELLS

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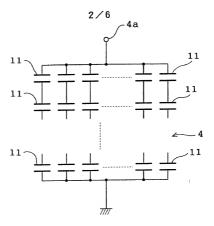


FIG.2

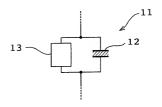


FIG.3

PERFORMANCE	EDLC BANK	LEAD-ACID STORAGE BATTERY	ALUMINUM SOLID ELECTROLYTIC CAPACITOR
ENERGY DENSITY	$0.2{\sim}10\mathrm{W}\mathrm{h}/\mathrm{kg}$	$10\sim40\mathrm{W}\mathrm{h}/\mathrm{kg}$	< 0.1Wh/kg
OUTPUT DENSITY	100W/kg~5000W/kg	$50\mathrm{W/kg}$ ~ $130\mathrm{W/kg}$	$10 \mathrm{KW/kg} \sim 100 \mathrm{KW/kg}$
CHARGING TIME	$0.1 \sim 100 \text{min.}$	$1\sim10~\mathrm{Hours}$	< 1 MSEC.
DISCHARGING	$0.1 \sim 100 \text{Min.}$	0.3~3 HOURS	<1 MSEC.
CHARGING EFFICIENCY	>82%	70%~85%	>82%
INTERNAL RESISTANCE	SEVERAL mQ	SEVERAL TENS mO	ESR≒10~100 mΩ
CYCLE LIFE	>10000	200~1000	>100000

 ${
m FIG.4}$

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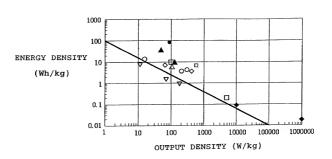
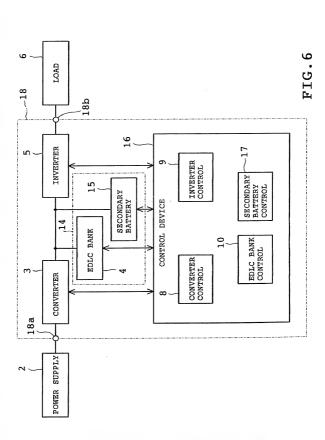


FIG.5

Title: POWER CONTROL DEVICE WITH ELECTRIC DOUBLE LAYER CAPACITOR UNIT CELLS

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